



# Environmental Report

HASKONING UK LTD.  
WATER

## Scarborough North Bay asset refurbishment scheme

---

### 1 Introduction

This report has been produced in support of an asset refurbishment scheme at North Bay Scarborough. It provides an environmental baseline of the area that has the potential to be affected by the proposed works. This information has been used to identify key environmental constraints and opportunities to inform the options appraisal process and to appraise the preferred option, providing appropriate avoidance and / or mitigation measures, where required.

### 2 Baseline environment

#### 2.1 Socio-economic context

##### *Local community*

Scarborough is one of the principal urban areas in North Yorkshire with a population of around 50,000 within the town boundaries and around 100,000 within the Borough (North Yorkshire County Council, 2012, Scarborough Borough Council, 2012a). The Borough has a balanced economy with employment mainly based on manufacturing, tourism, public sector services and retail. The North Bay area is dominated by residential properties, hotels, guesthouses, and leisure and recreation facilities. 503 properties have been identified as at risk of possible loss behind the defences should the North Bay defences fail.

##### *Tourism and recreation*

Tourism, including that associated with the sea front, is of vital importance to Scarborough. The town supports a substantial leisure and tourism industry, providing in the order of 4,000 full time equivalent jobs and generating annual revenues estimated at around £140 million. An essential feature of this tourism is the traditional beach use and this, both within South and North Bay, are key local recreational aspects of the frontage (Halcrow, 2008).

In recent years, North Bay has gained Blue Flag status, awarded to beaches compliant with 32 criteria covering water quality, environmental management, safety and services and environmental education and information. The coastal recreation opportunities within and immediately adjacent to the proposed scheme include walking along the beach, swimming, watersports, visiting fun parks and attractions including Peasholm Park, Miniature North Bay Railway and Scarborough Sea Life Centre. The Royal National Lifeboat Institution (RNLI) maintains a lifeguard station at North Bay during the summer season (RNLI, 2012). The Sands North Bay, a new 55 acre leisure and residential development overlooking North Bay, is expected to result in the growth of tourism and recreational activity in the area.

The Cleveland Way National Trail is a 176km walking route which starts at the market town of Helmsley and runs around the North York Moors National Park and along the North Yorkshire coastline to Filey (National Trail, 2012). At Scarborough, the trail passes through Scalby Mills past the Sea Life Centre and along the seafront at North Bay. The trail leaves North Bay by turning off the seafront onto Albert Road where it passes up onto the cliff top.



### *Critical infrastructure*

The A165 runs from North Bay to Burniston and beyond, in the north, and through Scarborough, to the south. Adjacent to the coast runs Royal Albert Drive, which was protected by the 2005 East Pier, Castle Headland and the Holms scheme, and which is the main coastal route linking the north and south bays at Scarborough.

Yorkshire Water is planning work to improve the storage, transfer and treatment of storm water in Scarborough, with work at five locations across the town including Scalby Mills and Peasholm Gap at the centre of the North Bay frontage (Yorkshire Bathing Water Partnership, 2011). A new pumping station is planned at Scalby Mills adjacent to the existing station. Work on the pumping station is planned to start in 2012. The work planned at Peasholm Gap will involve the installation of an underground storm overflow chamber. Work is also expected to start in 2012 and take up to one year to complete.

## 2.2 Biodiversity, flora and fauna

There are no designated sites for nature conservation that would be affected by the proposed works.

### *Castle Ground Recommended Marine Conservation Zone*

The Castle Ground recommended Marine Conservation Zone (rMCZ) extends from Filey Brigg in the south to approximately 1km north of North Bay. The depth range of the site is between 10m above mean low water mark and 5m deep, and the seabed is characterised by intertidal rocky and sediment features (Net Gain, 2011). The site has good benthic biodiversity and supports fish spawning grounds. Sea bird species such as kittiwake *Rissa tridactyla* and turnstone *Arenaria interpres* use the intertidal zone for foraging and the subtidal waters offshore of the site are important for large numbers of kittiwake, guillemot *Uria aalge*, razorbill *Alca torda*, gannets *Morus bassanus* and puffins *Fratercula arctica*. The coastal areas of Castle Ground provide nesting and breeding habitat for these offshore foraging species with approximately 11,500 breeding pairs within the site (Net Gain, 2011).

A Ministerial Statement in November 2011 announced that Natural England and the JNCC will provide formal advice on MCZ designation in July 2012 and that formal consultation on MCZs will be undertaken by the end of 2012 (Defra, 2011). The first MCZ designations are planned to take place in 2013.

## 2.3 Water

### *Bathing waters*

The objective of the Bathing Waters Directive (76/160/EEC) is to protect public health and the environment from faecal pollution in areas designated as bathing waters. Designated bathing waters require regular water quality monitoring, carried out by the Environment Agency, throughout the bathing season (15 May to 30 September) to ascertain whether they meet mandatory or guideline standards. Guideline standards are 20 times stricter than the mandatory standard, and meeting the guideline standard is one of the main criteria for the award of the European Blue Flag status.

North Bay has been designated as a bathing water since 1988 (EA, 2011). Water quality is currently classified by the Environment Agency as 'higher', meaning that the water meets the stricter UK standards of the Bathing Water Directive.



### Water Framework Directive

The Water Framework Directive (WFD) (2000/60/EC) establishes a legal framework to protect and restore clean water across Europe and to ensure its long term sustainable use. There are two river waterbodies with the potential to be affected by the proposed scheme; the Burniston Beck/Sea Cut/Scalby Beck Catch to North Sea and Scarborough North Beck.

The Burniston Beck/Sea Cut/Scalby Beck Catch to North Sea has been designated as heavily modified and the current overall status of the waterbody is moderate (EA, 2012a). Six mitigation measures have been identified to improve the status of the canal (see **Table 1**).

**Table 1 Mitigation measures to improve the status of heavily modified waterbodies in the study area, where available (EA, 2012a)**

WFD Waterbody	Mitigation Measure	Status
<b>Burniston Beck/Sea Cut/Scalby Beck Catch to North Sea (GB104027067980)</b>	Appropriate channel maintenance strategies and techniques - woody debris	In place
	Appropriate channel maintenance strategies and techniques - minimise disturbance to channel bed and margins	In place
	Retain marginal aquatic and riparian habitats (channel alteration)	Not in place
	Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone	Not in place
	Increase in-channel morphological diversity	Not in place
	Preserve and, where possible, restore historic aquatic habitats	Not in place
<b>Scarborough North (GB104027067920)</b>	Appropriate channel maintenance strategies and techniques - woody debris	In place
	Appropriate channel maintenance strategies and techniques - minimise disturbance to channel bed and margins	In place
	Sediment management strategies (develop and revise)	In place
	Appropriate techniques (invasive species)	In place
	Appropriate timing (vegetation control)	In place
	Appropriate vegetation control technique	In place
	Selective vegetation control regime	In place
	Educate landowners on sensitive management practices (urbanisation)	Not in place
	Operational and structural changes to, e.g. locks, sluices, weirs, beach control	Not in place
	Structures or other mechanisms in place and managed to enable fish to access waters upstream and downstream of the impounding works.	Not in place
	Alteration of channel bed (within culvert)	Not in place
	Re-opening existing culverts	Not in place
	Remove obsolete structure	Not in place

The Scarborough North waterbody flows into the centre of North Bay through Peasholm Park and through one of the coastal defence structures within the repair programme (Asset reference: 1221D901D1201C19). The waterbody is designated as heavily modified and its overall potential is classed as moderate. A number of mitigation measures have been identified to improve its status (see **Table 1**).



North Bay is located within the Yorkshire North coastal waterbody (GB650301500003) which stretches from Hartlepool Headland south to Flamborough Head. Yorkshire North is a moderately exposed mesotidal coastal waterbody which is classified as heavily modified (EA, 2012b). The waterbody's current overall potential is classed as good and no mitigation measures have been identified. Scarborough and the area to the north west of the town are within the Derwent North Yorkshire Moors Ravenscar groundwater. This groundwater currently has good overall status.

## 2.4 Landscape / seascape character and visual amenity value

The most dominant landscape feature at North Bay is Castle Headland which divides North Bay and South Bay, rising to 78 metres Above Ordnance Datum (AOD). From Scalby Ness, where the cliffs rise to approximately 37 metres AOD, to the centre of North Bay at Peasholm Gap the sea frontage is mostly sandy beach, backed mainly by recreational uses, protected by the sea wall (Halcrow, 2008).

Between Peasholm Gap and Castle Headland the sea wall continues along Royal Albert Drive, which fronts a broad sandy beach backed by a cliff which grows in height to become the headland. Late 19<sup>th</sup> century terraced housing, mainly providing holiday accommodation, line the cliff-tops (Halcrow, 2008). The cliff slopes are primarily semi-natural grassland, with footpaths and some recreational facilities. There are no designated 'Areas of Outstanding Natural Beauty' (AONB) within or close to the study area.

### *National Character Areas*

Natural England has divided England into 159 'National Character Areas' (NCA) (previously Joint Character Areas), which have similar landscape character at the national scale. The study area is located within the North Yorkshire Moors and Cleveland Hills NCA (Natural England, undated a). The area is a clearly demarcated block of high land in the north east of Yorkshire and Cleveland. Along the area's southern margin the Tabular Hills dip gently to the south and east but there is still a distinct change in slope where the land drops down to the Vale of Pickering to the south west of Scarborough.

North Bay is within the Saltburn to Bridlington Coastal Natural Area which stretches from Saltburn-by-the-Sea at its most northerly point to Bridlington located to the south of Flamborough Head (Natural England, undated b). The boundary of the area extends to the inland limit of all habitats with a coastal or estuarine influence and offshore to the 12nm limit. The area contains woodland, grasslands and high cliffs. Most of the coastline from Saltburn to Scarborough is designated as the 'North Yorkshire and Cleveland Heritage Coast', discussed below.

### *Seascape character*

The closest Heritage coast to North Bay is North Yorkshire and Cleveland Coast, which has its southern limit at Scalby Ness. This Heritage Coast is the seaward edge of the North York Moors National Park and consists of high cliffs and headlands cut by bays and woodland (Natural England, 2012).



## 2.5 Archaeology and cultural heritage

There are no World Heritage Sites within the study area. The principal built heritage feature within the North Bay area is Scarborough Castle which surmounts Castle Headland to the south of the works area. The castle is a Scheduled Ancient Monument and is open to the public on a seasonal basis (English Heritage 2012).

The ruins and below ground remains of St Mary's medieval church, also a Scheduled Ancient Monument, are located on Castle Headland to the south west of Scarborough Castle (English Heritage, 2012). There are no protected ship wreck sites within the vicinity of North Bay.

The southern part of North Bay, from Peasholm Gap southwards is within the Scarborough Conservation Area. Conservation Areas are designated by local Councils for "areas of special architectural or historic interest, the character or appearance of which is desirable to preserve or enhance". Character Appraisals and Conservation Management Proposals are being prepared for Scarborough Borough's Conservation Areas (Scarborough Borough Council, 2012b).

## 2.6 Soils and Geology

There are two Sites of Special Scientific Interest (SSSI) to the north and south of North Bay. These sites have been designated for their geological interest features and are described below.

### *Iron Scar and Hundale Point to Scalby Ness SSSI*

Iron Scar and Hundale Point to Scalby Ness SSSI is located to the immediate north of the Sea Life Centre. The cliffs and intertidal reefs between Iron Scar and Scalby Ness provide an almost complete section through the rocks of the Lower and Middle Jurassic Aalenian, Bajocian and Bathonian Stages and the exposures here are of national importance. In addition important fossil plant localities occur at Cloughton Wyke and Scalby Ness. This SSSI was classified as being 100% favourable within Natural England's Condition Summary in February 2008. The site is also considered to be of national importance in the Geological Conservation Review due to its Paleobotanical interest.

### *North Bay to South Toll House Cliff SSSI*

North Bay to South Toll House Cliff SSSI is located around the Holms and along the north side of Castle Headland. The site comprises both cliff and foreshore exposures which together demonstrate a remarkably complete succession through the Callovian Stage and the Lower Oxfordian Substage. This SSSI was classified as being 100% favourable within Natural England's Condition Summary in February 2008. The site also considered to be of national importance in the Geological Conservation Review for the cliff and foreshore exposures.



### 3 Environmental constraints

The following environmental constraints have been identified that could affect the options being considered:

- 503 properties have been identified as at risk of possible loss behind the defences should the North Bay defences fail;
- the existing coastal defences protect material assets and critical infrastructure, including Royal Albert Drive, the promenade, café, crazy golf course, miniature railway and a beach management centre, and will protect the proposed Yorkshire Water assets at Scalby Mills and Peasholm Gap;
- the foreshore area is known to be well used by the public for tourism and recreational uses; therefore, the proposed works have the potential to affect the tourism and recreational value of the area;
- the Castle Ground rMCZ is located adjacent to the proposed works;
- there are two geological SSSIs located to the north and south of North Bay;
- there are four WFD waterbodies that could be affected by the proposed works. North Bay is a designated bathing beach and currently holds Blue Flag status;
- the proposed works have the potential to affect the local landscape / seascape character;
- the proposed works have the potential to affect the Scarborough Conservation Area;
- a construction method statement will be required to ensure suitable mitigation for construction works (e.g. materials to be used, timing of works, prevention of pollution etc);
- any construction project in England which started after 6 April 2008 and has a value of over £300,000 has a legal requirement to have a Site Waste Management Plan (SWMP) in place. The SWMP will detail how resources will be managed, and waste materials controlled, at all stages during the construction period; and,
- Appendix F provides an Indicative Landscape Plan showing the key environmental constraints.

### 4 Environmental impacts of alternative options

The option appraisal for a sustain standard of service project is the Do Minimum, defined as the minimum action or intervention needed to ensure that the legal requirements or performance of an asset is met. Option 1 Phased Repair Scheme is the minimum amount of intervention that can be carried out whilst maintaining the current standard of service of the asset system in North Bay. Therefore Option 1 is the baseline for this option appraisal.

The potential key positive and negative environmental impacts of the detailed options being considered are presented in **Table 2**. For the purposes of the detailed options appraisal, only the potential impacts that differ between the options are presented here allowing for a comparison of each option's positive and negative impacts against each other, with mitigation measures and enhancement opportunities have also been proposed, where required. A complete appraisal of the positive and negative effects of the preferred option is presented in **Section 5**.



**Table 2 Comparison of key environmental impacts of the alternative options**

Key Positive Impacts	Key Negative Impacts	Mitigation / Enhancement Opportunity
<b>Option 1 – Phased repair scheme</b>		
Smaller, more localised, works with lower effects, due to shorter duration, on the surrounding environment.	Repeated disturbance associated with the repair works, extending over a period of 15 years (1, 8 and 15 years).	Works to the north of the bay, northwards of Peasholm Gap, should be undertaken outside of the over-wintering bird period (October to March).
A phased approach allows for the works to be more easily undertaken around sensitive tourism and bird periods.	Wave overtopping issue not resolved until the capital works have been completed.	Construction works should follow industry best practice guidance (i.e. PPG and CIRIA).
Repair works would extend the residual life of the defences, delaying the time for capital works by 30 years.		Works should be undertaken outside of peak tourism period.
		Production of a construction method statement will ensure suitable mitigation for construction works (e.g. materials to be used, timing of works, prevention of pollution, etc.)
		A Site Waste Management Plan (SWMP) will be produced and implemented prior to the commencement of works.
<b>Option 2 – Full repair scheme</b>		
Repair works would extend the residual life of the defences, delaying the time for capital works by 30 years.	Wave overtopping issue not resolved until the capital works have been completed.	Works should be undertaken outside of peak tourism period.
Repair works undertaken once. Thus, fewer disturbances than Option 1.		Works to the north of the bay, northwards of Peasholm Gap, should be undertaken outside of the over-wintering bird period (October to March).
Fewer disturbances and the extension to the residual life of the defences means that this option is considered to be the most sustainable.		Construction works should follow industry best practice guidance (i.e. PPG and CIRIA).
		Production of a construction method statement will ensure suitable mitigation for construction works (e.g. materials to be used, timing of works, prevention of pollution, etc.)
		A SWMP will be produced and implemented prior to the commencement of works.
<b>Option 3 – Capital scheme</b>		
Lowest disturbance to the surrounding environment as no repair works are required.	Residual life of the defences not extended to their full potential, thus reducing the period for when capital works will be required in the future.	Construction works should follow industry best practice guidance (i.e. PPG and CIRIA).



Key Positive Impacts	Key Negative Impacts	Mitigation / Enhancement Opportunity
Wave overtopping issue resolved sooner.	Potential for assets requiring urgent work to deteriorate further and collapse during the five year capital works period, leading to significant health and safety dangers to the public using the promenade, beach and road.	Works should be undertaken outside of peak tourism period.
		Works to the north of the bay, northwards of Peasholm Gap, should be undertaken outside of the overwintering bird period (October to March).
		Production of a construction method statement will ensure suitable mitigation for construction works (e.g. materials to be used, timing of works, prevention of pollution, prevention etc.)
		A SWMP will be produced and implemented prior to the commencement of works.

The information presented within **Table 2** illustrates the similarities between the three options, as shown by the lack of potential positive and negative potential impacts when compared to each other. The principal positive effect of Options 1 and 2 over Option 3 is the extension of the defences residual lives by 30 years, thus delaying the requirement for the capital works. For this reason, Options 1 and 2 are preferred, environmentally, over Option 3. The potential environmental effects of Options 1 and 2 are very similar; however, the lower number of disturbances that would result through the implementation of Option 2 means that this is the environmentally preferred option.

## 5 Environmental effects of the preferred option

This section provides an overview of the potential effects that could arise as a result of implementing the preferred option and describes measures that have been identified to date to avoid or mitigate these effects throughout the development of the scheme, where appropriate. A summary of the preferred option is provided below. In summary, the works for Option 1 include;

- installation of mass concrete scour protection at locations where undercutting of the wall has occurred due to erosion of the bed rock and/or lowering of beach levels;
- replacement of eroded masonry sets with new mass concrete apron;
- breaking out and reinstatement of eroded concrete edging at the toe of existing masonry block aprons; and,
- re-facing of eroded stepped masonry seawall with new mass concrete stepped facing.

The works are to be implemented over a two year construction period. Within this construction window the works would be carried out in four stages to avoid the winter months, due to winter weather making working on the foreshore impractical and also to minimise the potential effects to overwintering birds, and avoiding the summer months when peak tourist season would create issues with disruption and interaction with the public. Therefore construction is programmed to





be carried out from September to November and from March to June, from 2012 to 2014. The construction will also be constrained by tidal working as high tide reaches the seawall.

Given the nature and location of the scheme, the following aspects are considered relevant:

- Coastal processes;
- Biodiversity, flora and fauna;
- Noise and vibration;
- Water;
- Archaeology and cultural heritage;
- Landscape, seascape and visual amenity value; and,
- Tourism and recreation.

In addition to the receptor specific measures set out below to avoid / mitigate any adverse effects that could arise through the implementation of the preferred option, best practice guidance will be adhered to, in particular:

- Pollution Prevention Guidelines - Works in, near or liable to affect watercourses: PPG 5; and,
- CIRIA Coastal and Marine Environmental Management Site Guide (CIRIA report C584).

## 5.1 Coastal processes

The proposed scheme aims to repair the existing defences through re-facing the seawall and replacement of toe protection, where required. These works would result in approximately 155m of toe protection being extended 0.5m seawards and also approximately 70m of seawall extending approximately 0.7m seawards as a result of the resurfacing works. These changes are deemed negligible when considering their potential to affect the existing coastal processes.

## 5.2 Biodiversity, flora and fauna

The proposed scheme is not considered to affect breeding sea birds due to the lack of nearby suitable habitat. The works do however have the potential to disturb, in particular overwintering, foraging birds through noise and vibration created by construction machinery and through visual disturbance, in particular to the north of the bay towards Scalby Ness. Whilst the rocky intertidal area to the north of the scheme, in front of the Sea Life Centre and around Scalby Ness is known to support overwintering birds of national and international importance, numbers are not known to be nationally significant, as they are for South Bay (Halcrow, 2008).

Any birds affected by the proposed scheme would be displaced to the immediate north, around Scalby Ness. The proximity and size of this foraging area is such that displacement is not considered to adversely affect the foraging potential of the birds or reduce their condition during the overwintering period. Furthermore, no works would be undertaken from December to February, when foraging can be at its most difficult. In order to further reduce any adverse effects to foraging birds, measures to minimise potential noise and vibration impacts are recommended as described in **Section 5.3**. Consequently, the potential adverse effects to overwintering birds are considered to be negligible.

The intertidal area in front of the existing defences comprises mostly sand, with patches of rocky shore present towards the south. The sandy intertidal area is considered to be of low biodiversity



value; whilst the rocky shore is deemed to be of moderate importance due to its potential to support foraging birds. Works should avoid damaging rocky shore habitat, where ever possible.

### 5.3 Noise and vibration

In addition to the potential presence of overwintering birds, there are a number of commercial and residential properties within close proximity to the proposed works. The beach area surrounding the proposed works is also a popular location for walking and swimming. The most significant noise and vibration impacts would result from the breaking out of the existing defences and / or bedrock, where required. Other sources of airborne noise would result from the transportation of material and plant machinery.

In order to minimise potential noise and vibration impacts to sensitive receptors, the following best practice measures are recommended:

- ensure plant machinery is switched off when not in use;
- ensure that covers and hatches are properly secured and that there are no loose fixings causing rattling;
- ensure equipment is properly maintained and operated by trained staff;
- use silenced equipment where possible, in particular silenced generators; and,
- provide local residents with contact details of a site representative in the event that noise or vibration nuisance is perceived, and that any complaints are dealt with pro-actively and resolutions communicated to the complainant.

### 5.4 Water

#### *WFD compliance assessment*

Due to the limited nature of the proposed works, the groundwater waterbody is not considered to have the potential to be affected by the proposed works.

The proposed scheme comprises repair works to existing structures, with no new defence structures being proposed. The proposed toe protection and re-facing works would extend the existing defence line by approximately 0.5m and 0.7m seawards, respectively; however, this change to the coastal waterbody's geomorphology is considered to be negligible.

Potential adverse effects to the coastal and river waterbodies could result through accidental spills and leakages and through the release of contaminants used for the repair works. Only material approved for use in the marine environment will be used for the repair works. In addition to this, best practice and pollution prevention guidance will be adhered to throughout the duration of the scheme. As such, no adverse effects are anticipated to the status of the WFD waterbodies present.

#### *Bathing Water Directive*

As for the WFD assessment, with the use of approved materials and with the adherence of best practice and pollution prevention guidance, no adverse effects to bathing water quality are anticipated.



## 5.5 Archaeology and Cultural Heritage

Consultation with Scarborough Borough Council's Conservation Officer has confirmed that the preferred option will not have an adverse effect on the character or appearance of the Scarborough Conservation Area.

## 5.6 Landscape, seascape and visual amenity value

The construction works will temporarily affect the local landscape / seascape character and amenity value. In addition to adhering to best practice guidance, the following measures are proposed to minimise any adverse effects:

- locally advertising the proposed works;
- conducting the works outside of the peak tourism period; and,
- informing local residents of the proposed works.

## 5.7 Tourism and recreation

The construction works have the potential to effect recreational users of the area through increased noise and vibration, increased traffic, reduced access to the beach and visual impacts. In addition to the avoidance and mitigation measures proposed for noise and vibration, and landscape, seascape and visual amenity value, the proposed works are to take place outside of the peak tourism period. As such the potential adverse effects to tourism and recreation are considered to be minor.

# 6 Review of regulatory requirements

## 6.1 Marine and Coastal Access Act 2009

Part 4 of the Marine and Coastal Access Act (MCAA) 2009 provides the framework for the current marine licensing system for works below the level of mean high water spring (MHWS) tides. Consultation has been undertaken with the Marine Management Organisation who have confirmed that a Marine Licence is required for the proposed scheme.

## 6.2 Town and Country Planning Act 1990

The Town and Country Planning Act 1990 is the principle legislation that governs planning permission and planning law in England and Wales. The procedural rules and regulations of this Act are set out in a number of Statutory Instruments (SIs). Consultation with Scarborough Borough Council has confirmed that planning permission is not required for the proposed scheme.

## 6.3 Wildlife and Countryside Act 1981

Under the terms of Section 28(4)b of the Wildlife And Countryside Act 1981 as amended by Schedule 9 to the Countryside And Rights Of Way Act 2000, any operations within, or adjacent to, a Site of Special Scientific Interest (SSSI) require consent from Natural England. There are no SSSI's within the footprint of the proposed works. As the proposed works are considered to have a negligible effect on the existing coastal processes, no adverse effects are anticipated to the geological SSSIs to the north and south of the proposed works.



#### 6.4 Land Drainage Act 1991 and Water Resources Act 1991 and associated byelaws

Prior written consent from the Environment Agency is required for any works in, under or near a watercourse or flood defence structure on any main river. Burniston Beck/Sea Cut/Scalby Beck Catch to North Sea and Scarborough North Beck are not classified as main rivers by the Environment Agency; therefore, it is considered that an application for 'Consent for Works affecting watercourses and / or flood defences' would not be required.

#### 6.5 Habitats Regulations Assessment

The Conservation of Species and Habitats Regulations 2010 (the Habitats Regulations) implement EC Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna (the Habitats Directive). In accordance with Section 61 of the Habitats Regulations, Appropriate Assessment (AA) is required for any plan or project, not connected with the management of a European site, which is likely to have a significant effect on the site either alone or in combination with other plans and projects. European sites comprise Special Protection Area (SPA), as designated under Council Directive 79/409/EEC (the Wild Birds Directive), or a Special Area of Conservation (SAC), as designated under the Habitats Directive. AA is also required as a matter of government policy for potential SPAs, candidate SACs and listed Ramsar sites for the purpose of considering development proposals affecting them (ODPM, 2005).

The site of the proposed works does not contain or lie adjacent to any European designated sites. As such, AA is considered unlikely to be required.

#### 6.6 Water Framework Directive

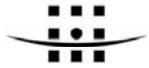
The WFD establishes a legal framework to protect and restore clean water across Europe to ensure its long-term, sustainable use. One of the aims of the WFD is to ensure that all European waterbodies are of Good Ecological Status/Potential by 2015 by the setting of Environmental Quality Objectives (EQO's), including water chemistry, ecological and hydromorphological quality needs. The Environment Agency has a duty to consider the implications of proposals under the WFD. Consideration of the implications of the proposed scheme under the WFD has been undertaken (see **Section 5.3**). With the adherence of best practice guidance, no adverse effects are anticipated to the status of the WFD waterbodies present.

#### 6.7 Requirement for Environmental Impact Assessment

The requirement for Environmental Impact Assessment (EIA) is established by the European Directive 85/33/EEC, as amended by 97/11/EC and 2003/35/EC, on the assessment of the effects of certain public and private projects on the environment (the EIA Directive). The EIA Directive, as amended, is implemented via various Regulations; the following are applicable to the proposed scheme:

##### *Marine Works (EIA) Regulations 2007*

The Marine Works (EIA) Regulations 2007, as amended, transpose the EIA Directive in relation to activities which are regulated under the MCAA. The MCAA provides a framework for the current marine licensing system for works below the level of mean high water spring (MHWS) mark. A screening opinion has been requested from the Marine Management Organisation. The screening opinion has yet to be issued.



## 7.0 References

Defra (2011) Written Ministerial Statement on Marine Conservation Zones. Available at: <http://www.defra.gov.uk/news/2011/11/15/wms-marine-conservation-zones/>

EA (2011) Bathing Water Profile, Scarborough North Bay, North Yorkshire, England. Available at: [http://www.environment-agency.gov.uk/static/documents/bwprofiles/BW\\_07300\\_Scarborough\\_North\\_Bay.pdf](http://www.environment-agency.gov.uk/static/documents/bwprofiles/BW_07300_Scarborough_North_Bay.pdf)

EA (2012a) River Basin Management Plan Humber River Basin District. Available at: <http://publications.environment-agency.gov.uk/PDF/GENE0910BSQR-E-E.pdf>

EA (2012b) River Basin Management Plan Northumbria River Basin District. Available at: <http://publications.environment-agency.gov.uk/PDF/GENE0910BSRV-E-E.pdf>

English Heritage (2012a) Scarborough Castle Visitor Information. Available at: <http://www.english-heritage.org.uk/daysout/properties/scarborough-castle/visitor-information>

English Heritage (2012b) National Heritage List Map Search web application: <http://list.english-heritage.org.uk/mapsearch.aspx>

English Nature (undated a) North Yorkshire Moors and Cleveland Hills. [http://www.naturalengland.org.uk/Images/jca25\\_tcm6-5621.pdf](http://www.naturalengland.org.uk/Images/jca25_tcm6-5621.pdf)

English Nature (undated b) Saltburn to Bridlington Coastal Natural Area Profile. Available at: <http://www.naturalareas.naturalengland.org.uk/science/natural/profiles%5CnaProfile100.pdf>

Halcrow (2008) Strategic Environmental Assessment of Scarborough Coastal Defence Strategy Review – Holbeck to Scalby Mills. Environmental Report.

National Trail (2012) Cleveland National Trail website: <http://www.nationaltrail.co.uk/clevelandway/index.asp?PageId=1>

Natural England (undated) North Yorkshire Moors and Cleveland Hills National Character Area. Available at: [http://www.naturalengland.org.uk/Images/jca25\\_tcm6-5621.pdf](http://www.naturalengland.org.uk/Images/jca25_tcm6-5621.pdf)

Natural England (2012) North Yorkshire and Cleveland Heritage Coast webpage: <http://www.naturalengland.org.uk/ourwork/conservation/designatedareas/heritagecoasts/northyorkscleveland.aspx>

Net Gain (2011) Final Recommendations Submission to Natural England and JNCC. Version 1.1. Available at: [http://www.netgainmcz.org/docs/Net\\_Gain\\_Final\\_Rec\\_v1\\_1.pdf](http://www.netgainmcz.org/docs/Net_Gain_Final_Rec_v1_1.pdf)

North Yorkshire County Council (2012) Statistics and Census information. Available at: <http://www.northyorks.gov.uk/index.aspx?articleid=2874>

RNLI (2012) Scarborough North Bay Lifeguard Unit Available at: [http://www.rnli.org.uk/rnli\\_near\\_you/north/beaches/scarboroughnorthbay](http://www.rnli.org.uk/rnli_near_you/north/beaches/scarboroughnorthbay)

Scarborough Borough Council (2012a) Census information. Available at: <http://www.scarborough.gov.uk/default.aspx?page=7982>



Scarborough Borough Council (2012b) Conservation Areas webpage:  
<http://www.scarborough.gov.uk/Default.aspx?page=9078>

Yorkshire Bathing Water Partnership (2011) An Update from Yorkshire Water – Investment in Scarborough. Available at:  
[http://www.yorkshirewater.com/medialibrary/Campaigns/rBWD/Newsletter\\_Nov11.doc.pdf](http://www.yorkshirewater.com/medialibrary/Campaigns/rBWD/Newsletter_Nov11.doc.pdf)